

WHAT IS CLAIMED IS:

1. A thermally-inhibited, non-pregelatinized granular starch or
5 flour.
2. The starch or flour of Claim 1, characterized in that the
starch or flour has an unchanged or reduced gelatinization
temperature.
- 10 3. The starch or flour of Claim 1, characterized in that an
aqueous dispersion of the cooked starch or flour has improved
viscosity stability and a non-cohesive texture in comparison to
the non-thermally-inhibited base starch or flour.
- 15 4. The starch or flour of Claim 1, characterized in that the
starch or flour has an unchanged or reduced gelatinization
temperature and characterized in that an aqueous dispersion of
the cooked starch or flour has improved viscosity stability and a
20 non-cohesive texture in comparison to the non-thermally-inhibited
base starch or flour.
5. The starch or flour of Claim 1, wherein the starch is a
cereal, root, tuber, legume, or fruit starch.
- 25 6. The starch or flour of Claim 5, wherein the starch is
selected from the group consisting of banana, corn, pea, potato,
sweet potato, barley, wheat, rice, sago, amaranth, tapioca,
sorghum, V.O., waxy maize, waxy pea, waxy wheat, waxy tapioca,
30 waxy rice, waxy barley, waxy potato, waxy sorghum, and a starch
or flour containing greater than 40% amylose.

7. The starch or flour of Claim 1, wherein the starch or flour is a modified starch or flour.

5 8. The starch of Claim 7, wherein the starch is a derivatized starch, a converted starch, a chemically crosslinked starch, a derivatized and converted starch, a derivatized and chemically crosslinked starch, or a converted and chemically crosslinked starch.

10 9. The starch of Claim 7, wherein the starch is derivatized by reaction with an etherifying or an esterifying reagent.

15 10. The starch of Claim 7, wherein the starch is an acid-, enzyme-, and/or heat-converted starch.

11. The starch or flour of Claim 7, wherein the flour is bleached and/or enzyme-converted.

20 12. A dehydrated and subsequently heat treated non-pregelatinized granular starch or flour.

sub 13. A process for making a thermally-inhibited, non-pregelatinized granular starch or flour, which comprises the steps of:

- 25 (a) dehydrating the starch or flour to anhydrous or substantially anhydrous, and
- (b) heat treating the anhydrous or substantially anhydrous starch or flour at a temperature and for a time sufficient to inhibit the starch or flour.

30 14. The process of Claim 13, wherein the dehydrating step is a thermal dehydrating step and/or a non-thermal dehydrating step.

15. The process of Claim ~~12~~², wherein the thermal dehydrating step is carried out in a fluidized bed.

16. The process of Claim 13, wherein the non-thermal dehydrating step is carried out by freeze drying the starch or flour or by extracting the starch or flour with a solvent.

17. The process of Claim 16, wherein the solvent is a hydrophilic solvent.

18. The process of Claim 17, wherein the hydrophilic solvent forms an azeotrope with water.

19. The process of Claim 18, wherein the solvent is an alcohol.

20. The process of Claim ~~13~~³, wherein the heat treating step is carried out at a temperature of 100°C or greater.

21. The process of Claim 20, wherein the heat treating step is carried out at a temperature of about 120-180°C for up to about 20 hours.

22. The process of Claim ~~13~~⁵, which further comprises the step of adjusting the pH of the non-pregelatinized granular starch to neutral or greater prior to the dehydrating step.

23. The process of Claim ~~22~~⁶, wherein the pH is about 7-9.5.

24. The process of Claim 13, further comprising the step of extracting the heat-treated starch or flour with an organic solvent to improve the flavor and/or color of the starch or flour.

25. The process of Claim ~~23~~^B, wherein the solvent is ethanol.

26. The process of Claim ~~13~~^L, further comprising the step of washing the starch or flour with water prior to the dehydrating step and/or after the heat treating step.

27. The process of Claim ~~13~~, further comprising the step of removing protein and/or lipid from the starch or flour prior to the dehydrating step and/or after the heat treating step.

28. The process of Claim ~~27~~, wherein a bleaching agent is used to remove the protein and/or lipid.

29. The process of Claim ~~28~~, wherein the bleaching agent is sodium chlorite.

30. The process of Claim ~~27~~, wherein an alkali is used to remove the protein and/or lipid.

31. The process of Claim ~~22~~^B, wherein the pH is about 9.5 and wherein the dehydrating step and heat treating steps are carried out in a fluidized bed at a temperature of about 120-160°C for up to 20 hours.